

Antibody Catalog

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THE
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ILLINOIS
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CHICAGO
TECHNOLOGY
MANAGEMENT



- 2 **Monoclonal**
- 4 **Polyclonal**
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Monoclonal

Tech ID	2012-033	1998-038
Tech Description	<p>Amyloid-β Peptide</p> <p>Antibody specifically detects Aβ, but not amyloid precursor protein (APP), which is cleaved by β- and γ- secretase to release Aβ. MOAB-2 is also selective for Aβ42 over Aβ40, which is advantageous given that the 42 amino acid form of Aβ is likely the toxic form of the peptide</p>	<p>Human P-Glycoprotein</p> <p>UIC2 is a monoclonal antibody that specifically and completely blocks the multidrug transporter p-glycoprotein (PGP) – an ATP-driven efflux pump – by trapping the PGP in a conformation that prohibits efflux.</p>
Species	Murine (IgG2b)	Murine (IgG2b)
Applications	<ul style="list-style-type: none"> • Neuroscience Research tool • Immuno-Diagnostics • Validated by dot-blot, Western-blot, Solid plate binding, immunohistochemical analysis, immunoprecipitation, and ELISA. 	<ul style="list-style-type: none"> • Research Tool • In-Vitro Diagnostic • Highly specific for PCG protein conformation • <i>Validated by radioimmunoprecipitation and immunofluorescent staining</i>
Publication	<p>Intraneuronal Aβ detection in 5xFAD mice by a new Aβ-specific antibody. <i>Mol Neurodegener.</i> 2012; 7:8.</p>	<p>Efficient inhibition of P-glycoprotein-mediated multidrug resistance with a monoclonal antibody. <i>Proc Natl Acad Sci U S A.</i> 1992 July 1; 89(13): 5824–5828.</p>
Faculty	Mary Jo La Du	Eugene Mechetner, Igor B.Roninson

Monoclonal

Tech ID	2001-015 2005-070	2012-046
Tech Description	<p>Human and Mouse b-Chain Associated Regulator of Apoptosis (BARA) Monoclonal antibodies that bind to different regions of the b-Chain Associated Regulator of Apoptosis (BARA).</p> <p>Evidence suggest that BARA may be a tumor suppressor protein or cell proliferation regulator that could be linked to some breast adenocarcinomas, prostate carcinomas, myelodisplastic syndromes anaplastic thyroid carcinomas.</p>	<p>Anti-LPP3 (Lipid Phosphate Phosphohydrolase 3)</p> <p>Monoclonal antibodies to human and mouse LPP3 antigens. LPP3 can be used to detect a subset of pluripotent, multipotent, and progenitor stem cells including angioblasts and endothelial progenitor cells. These can be used to detect LPP3 in immunoblots, immunoprecipitation, immunochemistry, immunofluorescence, and immunoassays.</p>
Species	Murine	Murine
Applications	<ul style="list-style-type: none"> • Cancer Research • Cell Proliferation • Diagnostic Testing • Useful in cytological, histological, blotting and diagnostic applications • <i>Validated by western blot</i> • <i>Experimental proof of concept exists</i> • <i>Animal studies have been conducted</i> • <i>Animal model exists</i> 	<ul style="list-style-type: none"> • Cancer Research • Cell Proliferation • Wound healing • The antibodies can detect native LPP3 antigen as well as denatured form. • It can be used to neutralize LPP function in vivo. • <i>Characterized antibodies available</i>
Publication	<p>A mutant allele of BARA/LIN-9 rescues the cdk4-/- phenotype by releasing the repression on E2F-regulated genes. Experimental Cell Research, Volume 312, Issue 13, 1 August 2006, Pages 2465-2475.</p>	<p>Lipid phosphate phosphatase 3 stabilization of beta-catenin induces endothelial cell migration and formation of branching point structures. Mol Cell Biol. 2010 Apr;30(7):1593-606. Epub 2010 Feb 1.</p>
Faculty	Oscar Colamonici	Kishore Wary

Polyclonal

Tech ID	2009-005	2004-040
Tech Description	<p>Human and bovine Angiotensin II</p> <p>Method for measuring apoptosis includes an antibody against a modified angiotensin II antigen and an immunochemical technique.</p>	<p>Bm Translationally Controlled Tumor Protein</p> <p>Polyclonal antibodies target Translationally Controlled Tumor Protein (Bm-TCTP) of the human parasite <i>Brugia malayi</i>. <i>B. malayi</i>, the causative agent for elephantitis, is a mosquito-borne parasitic filamentary nematode that is endemic in many tropical regions.</p>
Species	Rabbit	Rabbit
Applications	<ul style="list-style-type: none"> • Apoptosis detection • Useful in all tissues and species • <i>Experimental proof of concept exists</i> • <i>Animal studies have been conducted</i> 	<ul style="list-style-type: none"> • Immuno-diagnostics • Immunology Research Tool • Binds to a unique protein that has been implicated in the triggering of allergenic responses • <i>Validated by western blot</i>
Publication	<p>A novel method for detection of apoptosis. <i>Exp Cell Res.</i> 2012; 318(7):861-6.</p>	<p>Gene silencing of translationally controlled tumor protein (TCTP) by siRNA inhibits cell growth and induces apoptosis of human prostate cancer cells. <i>International Journal of Oncology.</i> 2009 May;34(5):1241-6.</p>
Faculty	Alexander Zagariya, Vidyasagar Dharmapuri	Kalyanasundaram Ramaswamy

Polyclonal

Tech ID	2011-128	2004-041
Tech Description	<p>Carboxypeptidase D (CPD)</p> <p>CPD is a plasma membrane enzyme that plays a role in cell signaling by cycling from the trans-Golgi to the plasma membrane. CPD may also be involved in peptide and protein processing in the constitutive secretory pathway.</p>	<p>Bm Abundant Larval Transcript-2 Protein</p> <p>Polyclonal antibody that is specific for the Abundant Larval Transcript (ALT) protein of the human parasite <i>Brugia malayi</i>. <i>B. malayi</i>, the causative agent for elephantiasis, is a mosquito-borne parasitic filamentary nematode that is endemic in many tropical regions.</p>
Species	Rabbit	Rabbit
Applications	<ul style="list-style-type: none"> • Useful in the detection of protein expression by western blotting, immunohistochemistry, immunoprecipitation. • Immunodiagnosics 	<ul style="list-style-type: none"> • Passive Vaccine • Immuno-diagnostics • Immunology Research Tool • Binds to an antigen that is a major candidate for use in the production of a vaccine against <i>B. malayi</i> • <i>Validated by western blot</i>
Publication	<p>Cross-talk between Carboxypeptidase M and the Kinin B1 Receptor Mediates a New Mode of G Protein-coupled Receptor Signaling. <i>The Journal of Biological Chemistry</i>. 2011 May;286(21):18547-18561</p>	<p>Brugia malayi: comparison of protective immune responses induced by Bm-alt-2 DNA, recombinant Bm-ALT-2 protein and prime-boost vaccine regimens in a jird model. <i>Experimental Parasitology</i>. 2007 Aug;116(4) 483-91.</p>
Faculty	Randal A. Skidgel, Peter A. Deddish, and Fulong Tan	Kalyanasundaram Ramaswamy

Polyclonal

Tech ID	2004-042	2004-046
Tech Description	<p>Recombinant G-Binding Factor</p> <p>Polyclonal antibody is specific for the G-Binding Factor (GBF) protein of the human parasite <i>S. mansoni</i>. <i>S. mansoni</i> is one of three species of helminth parasite responsible for schistosomiasis, a debilitating liver disease that is endemic to many tropical regions.</p>	<p>Sm16</p> <p>Polyclonal antibody that is specific for the anti-inflammatory protein Sm-16 that is produced by the human parasite <i>S. mansoni</i>. <i>S. mansoni</i> is one of three species of helminth parasite responsible for schistosomiasis, a debilitating liver disease that is endemic to many tropical regions.</p>
Species	Rabbit	Rabbit
Applications	<ul style="list-style-type: none"> • Drug development • Immunology Research Tool • Binds to a protein that is a potential drug target in <i>S. mansoni</i> • <i>Validated by western blot</i> 	<ul style="list-style-type: none"> • Immunology Research Tool • Immuno-diagnostics • Binds to a unique protein that suppresses inflammatory responses in the skin • <i>Validated by western blot</i>
Publication	<p>Expression of a 28-kilodalton glutathione S-transferase antigen of <i>Schistosoma mansoni</i> on the surface of filamentous phages and evaluation of its vaccine potential. <i>Clinical and Vaccine Immunology</i>. 2003 Jul;10(4):536-41.</p>	<p>Cloning and expression of a gene encoding Sm16, an anti-inflammatory protein from <i>Schistosoma mansoni</i>. <i>Molecular and Biochemical Parasitology</i>. 108 (2000) 101-108.</p>
Faculty	Kalyanasundaram Ramaswamy	Kalyanasundaram Ramaswamy

Polyclonal

Tech ID	2004-043	2004-045
Tech Description	<p>Sm Cercariae</p> <p>Polyclonal antibody against the cercariae stage of the human parasite <i>S. mansoni</i>. <i>S. mansoni</i> is one of three species of helminth parasite responsible for schistosomiasis, a debilitating liver disease that is endemic to many tropical regions.</p>	<p>Sm Translationally Controlled Tumor Protein</p> <p>Polyclonal antibody that is specific for the Translationally Controlled Tumor Protein (Sm-TCTP) of the human parasite <i>S. mansoni</i>. <i>S. mansoni</i> is one of three species of helminth parasite responsible for schistosomiasis, a debilitating liver disease that is endemic to many tropical regions.</p>
Species	Rabbit	Rabbit
Applications	<ul style="list-style-type: none"> • Vaccine Development • Immunology Research Tool • A pan-specific polyclonal antibody that has demonstrated utility in the detection and isolation of <i>S. mansoni</i> antigens for use in vaccine development • <i>Validated by western blot</i> 	<ul style="list-style-type: none"> • Immunology Research Tool • Immuno-diagnostics • Monitoring of asthma and allergy patients • Binds to a unique protein that has been implicated in the triggering of allergenic responses • <i>Validated by western blot</i>
Publication	<p>Cloning and characterization of a high mobility group box 1 (HMGB1) homologue protein from <i>Schistosoma mansoni</i>. <i>Molecular & Biochemical Parasitology</i>. 145 (2006) 137–146.</p>	<p>Cloning and characterization of a calcium binding, histamine-releasing protein from <i>Schistosoma mansoni</i>. <i>Journal of Biological Chemistry</i>. 277 (2002) 31207-31213.</p>
Faculty	Kalyanasundaram Ramaswamy	Kalyanasundaram Ramaswamy

Polyclonal

Tech ID	2004-044	2001-015 2005-070
Tech Description	<p>Sm GST</p> <p>Polyclonal antibody that is specific for the 28kDa Glutathione-S-Transferase (GST) protein of the human parasite <i>S. mansoni</i>. Glutathione-S-Transferase (GST) is an antigenic protein that is expressed by <i>S. mansoni</i> parasites and is being developed as an antigen in vaccines against <i>S. mansoni</i>.</p>	<p>Human and Mouse b-Chain Associated Regulator of Apoptosis (BARA)</p> <p>Monoclonal antibodies that bind to different regions of the b-Chain Associated Regulator of Apoptosis (BARA). Evidence suggest that BARA may be a tumor suppressor protein or cell proliferation regulator that could be linked to some breast adenocarcinomas, prostate carcinomas, myelodisplastic syndromes anaplastic thyroid carcinomas.</p>
Species	Rabbit	Rabbit
Applications	<ul style="list-style-type: none"> • Vaccine • Immuno-diagnostics • Immunology Research Tool • Binds to the GST tag that is widely used in the production of recombinant proteins • <i>Validated by western blot</i> 	<ul style="list-style-type: none"> • Cancer Research • Cell Proliferation • Diagnostic Testing • Useful in cytological, histological, blotting and diagnostic applications • <i>Validated by western blot</i> • <i>Experimental proof of concept exists</i> • <i>Animal studies have been conducted</i> • <i>Animal model exists</i>
Publication	<p>Expression of a 28-kilodalton glutathione S-transferase antigen of <i>Schistosoma mansoni</i> on the surface of filamentous phages and evaluation of its vaccine potential. <i>Clinical and Vaccine Immunology</i>. 2003 Jul;10(4):536-41.</p>	<p>A mutant allele of BARA/LIN-9 rescues the cdk4/- phenotype by releasing the repression on E2F-regulated genes. <i>Experimental Cell Research</i>, Volume 312, Issue 13, 1 August 2006, Pages 2465-2475</p>
Faculty	Kalyanasundaram Ramaswamy	Kalyanasundaram Ramaswamy

Polyclonal

Tech ID	2011-057+
Tech Description	JARID1A and JARID1B Research System <p>Various unique expression vectors for the study of JARID1A and JARID1B biological function (DE040-053), 12 stably transfected cell lines containing vectors for inducible expression of shRNA for either RB, JARID1A or JARID1B (DE054-069), and ChIPseq data for JARID1A and JARID1B in selected human cancer cells (DE072-077).</p>
Species	Rabbit
Applications	<ul style="list-style-type: none">• Cancer research (all)• Drug target discovery (DE040-048, 072-077)• Immunoassay development (DE040-048)• Gene knockdown studies (DE049-053)• In vitro and xenograph studies of JARID1A and JARID1B (DE054-069)• Immediate expression of cancer implicated proteins without plasmid design and cloning (DE040-048)• High affinity antibodies (DE040-048)• Convenient expression systems (DE049-064)• Readily available ChIPseq data (DE072-77)
Publication	Selective targeting of histone methylation . <i>Cell Cycle</i> . 2011; 10(3):413-24.
Faculty	Elzaveta Benevolenskaya

Polyclonal

Tech ID	2017-040
Tech Description	<p>Polyclonal Antibody against Cullin 4A (CUL-4A)</p> <p>Polyclonal antibody that is specific for chemically synthesized peptide ERDKDNPQYHYVA, which corresponds to the human CUL-4A protein. CUL-4A is an ubiquitin-protein that interacts with DNA-binding protein (DBB). It is involved in cell cycle progression and DNA damage repair mechanisms.</p> <p>CUL 4A has been characterized as an oncogene that is upregulated in carcinomas, and has been identified as potential therapeutic target.</p>
Species	Rabbit
Applications	<ul style="list-style-type: none">• Cancer research• Drug target discovery Immunoassay development• Binds to epitope ERDKDNPQYHYVA on Cullin 4A• Targets a protein that is overexpressed in many types of cancer.• Validated by Western Blot• Immunoprecipitation
Publication	<p>Cullin 4A Associates with the UV-damaged DNA-binding Protein DDB. <i>The Journal of Biological Chemistry</i>. 1999 Dec;274(50):35209-35312</p> <p>CUL4A ubiquitin ligase: a promising drug target for cancer and other human diseases. <i>Open Biol.</i> 4: 130217.</p>
Faculty	Pradip Raychaudhuri

Polyclonal

Tech ID	2017-065
Tech Description	Forkhead Box M1 (FoxM1) <p>Polyclonal antibody that is specific for human FoxM1 protein sequence between amino acids 365-748. The FoxM1 is a transcription factor that regulates the expression of genes essential for the progression into the S-phase of mitosis. Known as a proto-oncogene, FoxM1 is upregulated in a variety of cancers, and has been identified as a therapeutic target.</p>
Species	Rabbit
Applications	<ul style="list-style-type: none">• Cancer research• Cell Cycle and Transcriptional Factor Research• Binds to a transcription factor overexpressed in many cancers.• Targets a protein that is overexpressed in many types of cancer.• Validated by Western Blot• Chromatin Immunoprecipitation
Publication	Forkhead Box M1 regulates the Transcriptional Network of Genes Essential for Mitotic Progression and Genes Encoding the SCF (Skp2-Cks1) Ubiquitin Ligase . Molecular and Cellular Biology. 2005 Dec;25(24):10875-10894
Faculty	Robert H. Costa

Synthetic Binding Agent

Tech ID	2015-171	2015-170
Tech Description	<p>Anti-<u>FYN</u>-FN3 Affinity Reagent</p> <p>The reagent is a variant of a fibronectin type III domain (FN3) scaffold isolated from a phage-display library after affinity selection. It is renewable, easily produced via expression in <i>E. coli</i>. The reagent has been successfully used in ELISA.</p>	<p>Anti-<u>CDK2</u>-FN3 Affinity Reagent</p> <p>The reagent is a variant of a fibronectin type III domain (FN3) scaffold isolated from a phage-display library after affinity selection. It is renewable, easily produced via expression in <i>E. coli</i>. The reagent has been successfully used in ELISA.</p>
Species	Synthetic	Synthetic
Applications	<ul style="list-style-type: none"> • ELISA 	<ul style="list-style-type: none"> • ELISA
Publication	<p>Isolation of Monobodies That Bind Specifically To The SH3 Domain of The FYN Tyrosine Protein Kinase. <i>N Biotechnol.</i> 2012 June; 29(5):526-533.</p>	<p>Streamlining the Pipeline for Generation of Recombinant Affinity Reagents by Integrating the Affinity Maturation Step <i>Int. J. Mol. Sci.</i>. 2015 Oct; 16(10):23587-23603.</p>
Faculty	Brian K. Kay, Renhua Huang, Peter Fang	Michael Kierny, Brian Kay

Synthetic Binding Agent

Tech ID	2015-169	2015-150
Tech Description	<p>Anti-CDC34-FN3 Affinity Reagent</p> <p>The reagent is a variant of a fibronectin type III domain (FN3) scaffold isolated from a phage-display library after affinity selection. It is renewable, easily produced via expression in <i>E. coli</i>. The reagent has been successfully used in ELISA.</p>	<p>Anti-LYN-FN3 Affinity Reagent</p> <p>The reagent is a variant of a fibronectin type III domain (FN3) scaffold isolated from a phage-display library after affinity selection. It is renewable, easily produced via expression in <i>E. coli</i>. The reagent has been tested in ELISA and pull-down experiments.</p>
Species	Synthetic	Synthetic
Applications	<ul style="list-style-type: none"> • ELISA 	<ul style="list-style-type: none"> • ELISA • Pull-down
Publication	<p>Streamlining the Pipeline for Generation of Recombinant Affinity Reagents by Integrating the Affinity Maturation Step Int. J. Mol. Sci.. 2015 Oct; 16(10):23587-23603.</p>	<p>Directed Evolution of a Highly Specific FN3 Monobody to the SH3 Domain of Human Lyn Tyrosine Kinase. <i>PLOS one</i> . 2016 Jan; 11(1):e0145872.</p>
Faculty	Brian K. Kay, Renhua Huang	Brian K. Kay, Renhua Huang

Synthetic Binding Agent

Tech ID	2015-149	2015-148
Tech Description	<p>Anti-Map2K5-FN3 Affinity Reagent</p> <p>The reagent is a variant of a fibronectin type III domain (FN3) scaffold isolated from a phage-display library after affinity selection. It is renewable, easily produced via expression in <i>E. coli</i>, and has affinity in the low nanomolar (1-50 nM) range. The reagent has been tested in ELISA and pull-down experiments.</p>	<p>Anti-PAK1-FN3 Affinity Reagent</p> <p>The reagent is a variant of a fibronectin type III domain (FN3) scaffold isolated from a phage-display library after affinity selection. It is renewable, easily produced via expression in <i>E. coli</i>. The reagent has been successfully used in ELISA.</p>
Species	Synthetic	Synthetic
Applications	<ul style="list-style-type: none"> • ELISA • Pull-down 	<ul style="list-style-type: none"> • ELISA
Publication	<p>Streamlining the Pipeline for Generation of Recombinant Affinity Reagents by Integrating the Affinity Maturation Step <i>Int. J. Mol. Sci.</i>. 2015 Oct; 16(10):23587-23603.</p>	<p>Streamlining the Pipeline for Generation of Recombinant Affinity Reagents by Integrating the Affinity Maturation Step <i>Int. J. Mol. Sci.</i>. 2015 Oct; 16(10):23587-23603</p>
Faculty	Michael Kierny, Brian K. Kay, Christopher Vinci	Michael Kierny, Brian K. Kay, Renhua Huang

Synthetic Binding Agent

Tech ID	2015-147
Tech Description	Anti-<u>USP11</u>-FN3 Affinity Reagent <p>The reagent is a variant of a fibronectin type III domain (FN3) scaffold isolated from a phage-display library after affinity selection. It is renewable, easily produced via expression in <i>E. coli</i>, and has affinity in the low nanomolar (1-50 nM) range. The reagent has been tested in ELISA and pull-down experiments.</p>
Species	Synthetic
Applications	<ul style="list-style-type: none">• ELISA• Pull-down
Publication	<u>Streamlining the Pipeline for Generation of Recombinant Affinity Reagents by Integrating the Affinity Maturation Step</u> <i>Int. J. Mol. Sci.</i> . 2015 Oct; 16(10):23587-23603.
Faculty	Michael Kierny, Brian K. Kay, Christopher Vinci